

N65928.AR.002401
NTC ORLANDO
5090.3a

LETTER REGARDING MONITORING ONLY PROPOSAL BUILDING 2036 WITH
ATTACHMENT NTC ORLANDO FL
4/6/1998
ABB ENVIRONMENTAL SERVICES, INC



April 6, 1998

Document No.: 2530.064

Mr. John W. Mitchell
Florida Department of Environmental Protection
Twin Towers Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

**Subject: Building 2036, Main Base
Monitoring Only Proposal
Naval Training Center, Orlando, Florida
Contact Task Order 107, Contract No.: N62467-89-D-0317/107**

Dear Mr. Mitchell:

A letter report was submitted for Building 2036, Main Base, Naval Training Center (NTC), Orlando, Florida, on July 3, 1997. The letter report recommended a no further action (NFA) recommendation for this site. Levels of xylene and naphthalene, which were detected at the site, only slightly exceeded the NFA criteria. Florida Department of Environmental Protection (FDEP) requested in a letter (see Attachment A for the FDEP letter dated October 30, 1997) that monitoring wells MW-1 and MW-4 be overdeveloped and later resampled. A map showing monitoring well locations is included in Attachment B.

Following FDEP recommendations, ABB Environmental Services, Inc. (ABB-ES) overdeveloped monitoring wells MW-1 and MW-4 on December 16, 1997. Southern Waste Services, Inc., used a vacuum truck to extract a total of 1,500 gallons of groundwater from monitoring well MW-1 and 1,500 gallons from monitoring well MW-4. Southern Waste Services, Inc., disposed of the petroleum-impacted groundwater at the Howco facility in St. Petersburg, Florida. Attachment C contains a copy of the Disposal Manifest for the site.

Following overdevelopment, monitoring wells MW-1 and MW-4 were resampled December 22, 1997. The groundwater samples were transported to Savannah Laboratories and Environmental Services Inc., in Savannah Georgia, to be analyzed using U.S. Environmental Protection Agency (USEPA) Methods 601, 602, 610, 504, 239.2 and Florida-Petroleum Residual Organics (FL-PRO). Laboratory analytical results for monitoring well MW-1 showed a slight increase in ethylbenzene concentrations from 8.8 micrograms per liter ($\mu\text{g}/\ell$) to 18 $\mu\text{g}/\ell$, toluene from 11.1 $\mu\text{g}/\ell$ to 19 $\mu\text{g}/\ell$, and xylene from 33.6 $\mu\text{g}/\ell$ to 114 $\mu\text{g}/\ell$, and total recoverable petroleum hydrocarbons (TRPH) was detected at 12 milligrams per liter in monitoring well MW-1. All parameters sampled in monitoring well MW-4 were reported below

ABB Environmental Services Inc.



1080 Woodcock Road, Suite 100
St. Paul Building
Orlando, Florida 32803

Telephone (407) 895-8845
Fax (407) 896-6150

standard laboratory detection limits. Table 1 summarizes all laboratory analytical results for the site, and Attachment D contains a copy of the laboratory analytical reports and chain-of-custody forms for this sampling event.

The December 22, 1997, sampling data show that petroleum impact to the groundwater under the site is above the NFA criteria for total xylenes and TRPH. Based on these findings, ABB-ES recommends a monitoring only proposal for the site. Monitoring will consist of quarterly sampling and analysis of monitoring well MW-1, MW-2 and MW-4 for the period of one year. Groundwater samples will be analyzed using USEPA Methods 602, 610 and FL-PRO. Quarterly monitoring reports will be submitted to FDEP, and the last quarter monitoring report will include recommendations for the final disposition of the site.

If you have any questions concerning the recommendations for this site, please contact Mr. Nick Ugolini at (803) 820-5596 or the undersigned at (404) 895-8845.

Sincerely,

ABB-ENVIRONMENTAL SERVICES, INC.

Mirna Barq
Project Engineer

Manuel Alonso, P.G.
Senior Geologist
P.G. No. 0001256

NTC-3026.MOP
SAS.04.97

cc: Nick Ugolini, Code 1843, Southern Division
Wayne Hansel, Code 18B7, Southern Division
Lt. Gary Whipple, NTC, Orlando
Mark Zill, NTC, Orlando
J. Kaiser, ABB-ES

**Building 2036, Main Base
Monitoring Only Proposal
Naval Training Center
Orlando, Florida**

[illegible]

Table 1 (Continued)
Summary of Groundwater Analytical Results

Building 2036, Main Base
Monitoring Only Proposal
Naval Training Center
Orlando, Florida

Parameter	Chapter 62-770 FAC Target Cleanup Levels	Monitoring Well Number											
		MW-1						MW-2			MW-3		
		11/15/95	10/1/96	12/27/96	2/13/97	5/14/97	12/22/97	11/15/95	10/1/96	5/14/97	11/15/95	10/1/96	5/14/97
Indeno(1,2,3-cd)pyrene	0.2	NA	NA	NS	NA	NA	<0.5	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.2	NA	NA	NS	NA	NA	<1	NA	NA	NA	NA	NA	NA
Naphthalene	20	1,010	<5	NS	45	69	<1	<2	<5	<5	<2	<5	<5
Phenanthrene	210	95	<5	NS	<5	<5	0.37	<2	<5	<5	<2	<5	<5
Anthracene	2,100	NA	NA	NS	NA	NA	<0.2	NA	NA	NA	NA	NA	NA
Pyrene	210	<80	<5	NS	<5	<5	1.1	<2	<5	<5	<2	<5	<5
1,2-Dichloroethane	3	NA	NA	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA
See notes at end of table.													

Table 1 (Continued)
Summary of Groundwater Analytical Results

Building 2036, Main Base
Monitoring Only Proposal
Naval Training Center
Orlando, Florida

Parameter	Chapter 62-770 FAC Target Cleanup Levels	Monitoring Well Number										
		MW-4				MW-5			DW-1			TW-1
		11/15/95	10/1/96	5/14/97	12/22/97	11/15/96	10/1/96	5/14/97	11/15/95	10/1/96	5/14/97	10/9/95
Benzene	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2
Ethylbenzene	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	4.5
Toluene	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	10
Xylenes	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	59
Total VOAs	50	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	73.5
MTBE	50	<1	<5	<5	<10	<1	<5	<5	<1	<5	<5	<2
EDB	0.02	<0.02	NS	NS	<0.02	<0.02	NS	NS	<0.02	NS	NS	NS
Total lead (mg/l)	50	17.7	<3	NS	0.12	9.8	<3	NS	<2	<3	NS	NS
TRPH (mg/l)	5,000	1,000	<1,000	NS	<0.30	<1,000	<1,000	NS	<1,000	<1,000	NS	NS
Acenaphthene	20	<2	<5	<5	<1	<1	<5	<5	<2	<5	<5	220
Acenaphthylene	210	<2	<5	<5	<1	<2	<5	<5	<2	<5	<5	120
Benzo(a)pyrene	0.2	NA	NA	NA	<0.2	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	210	NA	NA	NA	<0.5	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	0.2	NA	NA	NA	<0.2	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.5	NA	NA	NA	<0.5	NA	NA	NA	NA	NA	NA	NA
Chrysene	5	NA	NA	NA	<0.2	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	0.2	NA	NA	NA	<0.2	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	280	<2	<5	<5	<0.5	<2	<5	<5	<2	<5	<5	59
Fluorene	280	NA	NA	NA	<0.5	NA	NA	NA	NA	NA	NA	NA
See notes at end of table.												

Table 1 (Continued)
Summary of Groundwater Analytical Results

Building 2036, Main Base
Monitoring Only Proposal
Naval Training Center
Orlando, Florida

Parameter	Chapter 62-770 FAC Target Cleanup Levels	Monitoring Well Number										
		MW-4				MW-5			DW-1			TW-1
		11/15/95	10/1/96	5/14/97	12/22/97	11/15/96	10/1/96	5/14/97	11/15/95	10/1/96	5/14/97	10/9/95
Indeno(1,2,3-cd)pyrene	0.2	NA	NA	NA	<0.5	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.2	NA	NA	NA	<1	NA	NA	NA	NA	NA	NA	NA
Naphthalene	20	<2	<5	<5	<1	<2	<5	<5	<2	<5	<5	490
Phenanthrene	210	<2	<5	<5	<0.2	<2	<5	<5	<2	<5	<5	94
Anthracene	2,100	NA	NA	NA	<0.2	NA	NA	NA	NA	NA	NA	NA
Pyrene	210	<2	<5	<5	<0.5	<2	<5	<5	<2	<5	<5	<20
1,2-Dichloroethane	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes: All concentrations in micrograms per liter, unless otherwise noted.

FAC = Florida Administrative Code.

< = less than.

Total VOAs = total volatile organic aromatics; sum of the concentrations of benzene, toluene, ethylbenzene, and xylenes.

NA = not applicable.

MTBE = methyl tert-butyl ether.

EDB = ethylene dibromide.

NS = not sampled.

mg/l = milligrams per liter.

TRPH = total recoverable petroleum hydrocarbons (reported as Florida-Petroleum Residual Organics).

ATTACHMENT A

767.0200

Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wether
Secretary

October 30, 1997

Mr. Nick Ugolini
Code 184(PVC)
Southern Division
Naval Facilities Engineering Command
2155 Eagle Drive
P.O. Box 190010
North Charleston, South Carolina 29419-9010

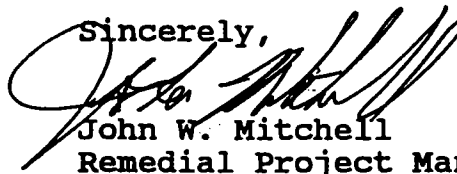
RE: Monitoring Report, Building 2036, Main Base, NTC Orlando
FDEP #488840202

Dear Mr. Ugolini:

I have completed the technical review of the Monitoring Report dated July 3, 1997 (received July 7, 1997) submitted for Building 2036. I do not agree with no further action (NFA) for this site as current contamination levels in monitoring well MW-1 continue to be above the no further action criteria described in Chapter 62-770 F.A.C. (revised September 23, 1997). However, as the NFA level for xylene and naphthalene are only slightly exceeded, I recommend overdeveloping MW-1. Sampling and analysis for the Kerosene Analytical Group should be performed on wells MW-1 and MW-4. Should contaminant levels continue to be above no further action criteria, then you must submit a monitoring only or remedial action proposal.

If I can be of any further assistance with this matter, please contact me at (904) 921-9989.

Sincerely,


John W. Mitchell
Remedial Project Manager

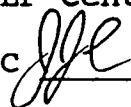
cc: Wayne Hansel, Navy SouthDiv
John Kaiser, ABB, Orlando
Bob Cohose, Bechtel, Knoxville
Nancy Rodriguez, USEPA Region IV
Gary Whipple, NTC Orlando
Steve McCoy, Brown and Root, Oak Ridge
Bill Bostwick, FDEP Central District

cc: Samuel Alonso
Mina Barg.

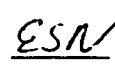
TJB



JJC



ESN



ATTACHMENT B

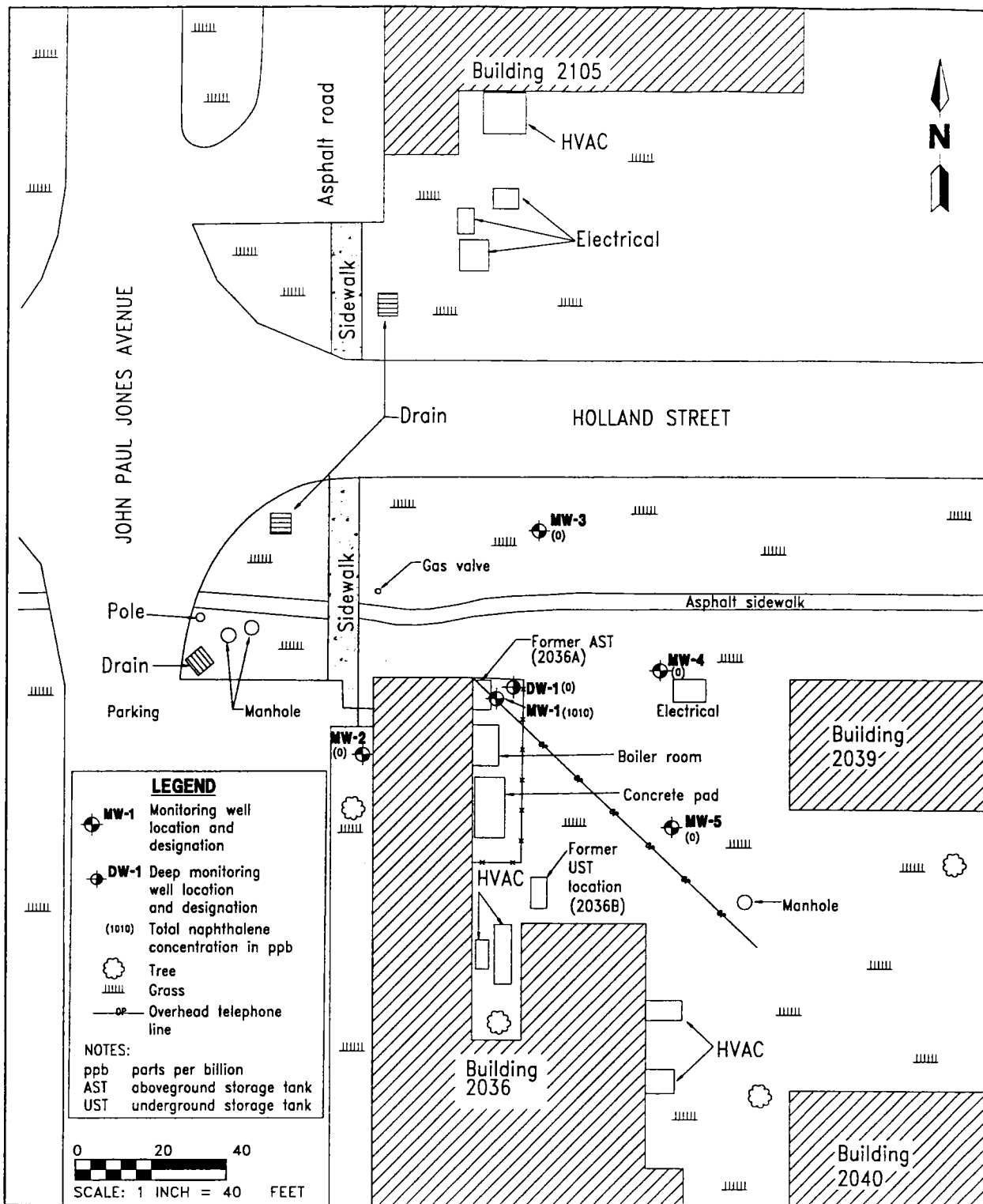


FIGURE 3-3
TOTAL NAPHTHALENE CONCENTRATION MAP



**CONTAMINATION ASSESSMENT
 REPORT
 BUILDING 2036
 MAIN BASE
 NAVAL TRAINING CENTER
 ORLANDO, FLORIDA**

ATTACHMENT C

**NON-HAZARDOUS
WASTE MANIFEST**

1. Generator's US EPA ID No.

Manifest
Document No.

2. Page 1
of

Tracking Code
97

3. Generator's Name and Mailing Address

1000 W. 1st St. W. Waco, TX 76792

4. Generator's Phone ()

5. Transporter 1 Company Name

Southern Waste Service

6. US EPA ID Number

FL00000956744

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address

Howco Environmental
243 N. 3rd St. South
St. Cloud, FL 33711

10. US EPA ID Number

FL0152762767

A. Transporter's Phone 813-546-6193

B. Transporter's Phone

C. Facility's Phone

813-323-0818

11. Waste Shipping Name and Description

12. Containers

No.

Type

13.
Total
Quantity

14.
Unit
Wt/Vol

a.

Pink - 2 net weight

001 TF

3000

6

b.

c.

d.

D. Additional Descriptions for Materials Listed Above

E. Handling Codes for Wastes Listed Above

M-130

15. Special Handling Instructions and Additional Information

In case of emergency 1-800-881-8367

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name

Mark S. J. N. C. F.

Signature

[Signature]

Month Day Year

11/2/16/17

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

Jesse M. R. [Signature]

Signature

[Signature]

Month Day Year

11/2/16/17

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year

19. Discrepancy Indication Space

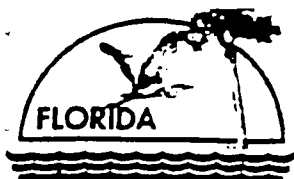
20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name

Signature

Month Day Year

ATTACHMENT D



DEP Form # 62-10900-1

Form Title: Petroleum or Petroleum Products

Water Sampling Log

Effective Date: September 27, 1997

Petroleum or Petroleum Products Water Sampling Log

FDEP FACILITY NO.:	WELL NO.: MW-4	SAMPLE ID: 0176 M405	DATE: 12/22/97
SITE NAME: Mico Orlando	SITE LOCATION: Bldg 9036		

PURGE DATA								
WELL DIAMETER (in): 2		TOTAL WELL DEPTH (ft): 12		DEPTH TO WATER (ft): 3.2		WELL CAPACITY (gal/ft): 0.16		
WELL VOLUME (gal) = (TOTAL WELL DEPTH - DEPTH TO WATER) x WELL CAPACITY = = (12 - 3.2) x 0.16 = 1.4								
PURGE METHOD:					PURGING INITIATED AT: 1155		PURGING ENDED AT: 1230	
					PURGE RATE (gpm): 0.14		TOTAL VOLUME PURGED (gal): 5	
WELL VOLS. PURGED	CUMUL. VOLUME PURGED (gal)	pH	TEMP. (°C)	COND. (µmhos)	COLOR	ODOR	APPEARANCE	OTHER
	0.5	6.30	27	810	—	—	Muddy	
	1	6.23	27	800	—	—		
	3	6.26	27	780	—	—		
	5	6.26	27	780	—	—		

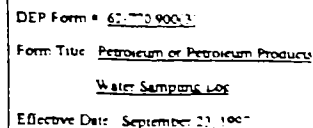
SAMPLING DATA							
SAMPLED BY / AFFILIATION: ABB-ES				SAMPLER(S) SIGNATURE(S): Mirna Baig M. Baig			
SAMPLING METHOD(S): peristaltic				SAMPLING INITIATED AT: 1235		SAMPLING ENDED AT: 1245	
FIELD DECONTAMINATION: Y (N)			FIELD-FILTERED: Y (N)			DUPLICATE: Y (N)	
SAMPLE CONTAINER SPECIFICATIONS			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (ml)	FINAL pH		
2	CG	40 mL	HCL	—		EPA 601/602	
2	AG	1 Ltr	—	—		EPA 610	
1	HDP	500 mL	HNO3	—		EPA 239.7	
2	CG	40 mL	—	—		EPA 504	
2	AG	1 Ltr	HCL	—		FI-p/c	

REMARKS:

MATERIAL CODES: AG - AMBER GLASS; CG - CLEAR GLASS; HDP - HIGH DENSITY POLYETHYLENE; O - OTHER (SPECIFY)

WELL CAPACITY: 1.25" = 0.06 gal/ft; 2" = 0.16 gal/ft; 4" = 0.65 gal/ft; 6" = 1.47 gal/ft; 8" = 2.61 gal/ft; 12" = 5.88 gal/ft

OTE: this does not constitute all the information required by Chapter 62-160, F.A.C.



FDEP FACILITY NO.:	WELL NO.: MW-4	SAMPLE ID: 0176M107	DATE: 12/22/97
SITE NAME: NTC Orlando	SITE LOCATION: Bldg 3036		

WELL DIAMETER (in):	2	TOTAL WELL DEPTH (ft):	12	DEPTH TO WATER (ft):	2.6	WELL CAPACITY (gal/ft):	2.16
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$$= (12 - 3.6) \times 0.16 = 1.5$$

PURGE METHOD:	PURGING INITIATED AT: 1055	PURGING ENDED AT: 115
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WELL	CUMUL VOLUME				PURGE RATE (gpm): 0.25	TOTAL VOLUME PURGED (gal): 5
------	--------------	--	--	--	------------------------	------------------------------

VOLS. PURGED	PURGED (gal)	pH	TEMP. (°C)	COND. (µmhos)	COLOR	ODOR	APPEARANCE	OTHER
-----------------	-----------------	----	---------------	------------------	-------	------	------------	-------

c.5	c.5	c.20	37	800	-	-	Maddy
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1	1	670	37	800	-	-	1	
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3	=	613	27	78c	-	-	
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5	20	2003	2005	780	-	-	
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[illegible]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	52
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SAMPLED BY / AFFILIATION	ARB-E S	SAMPLER(S) SIGNATURE(S)	Ming BARC	12 Pm
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SAMPLING METHOD(S):	peristaltic	SAMPLING INITIATED AT:	1115	SAMPLING ENDED AT:	1123
---------------------	-------------	------------------------	------	--------------------	------

FIELD DECONTAMINATION: Y (N)	FIELD-FILTERED: Y (N)	DUPLICATE: Y (N)
------------------------------	-----------------------	------------------

SAMPLE CONTAINER SPECIFICATIONS	SAMPLE PRESERVATION	INTENDED ANALYSES
---------------------------------	---------------------	-------------------

SPECIFICATIONS					INTENDED ANALYSIS AND/OR METHOD
NO.	MATERIAL	VOLUME	PRESERVATIVE	TOTAL VOLUME	

NO.	CODE	VOLUME	USED	ADDED IN FIELD (ml)	pH	REFERENCE METHOD
5						

3	CC	40m	HCL	-	EPA 601/602
	AS	10m			

2	4	1/2	-	-	11	210
1	20	1/2	1/2	-	11	210

1	11/11/11	2nd Mile	4.00	1	11/11/11	2nd Mile	4.00
2	11/11/11	1st Mile	4.00	1	11/11/11	1st Mile	4.00

3	6	100%	1			100%
4	10	100%	100%	1		100%

	F0	F01	F01			11-112
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REMARKS:

MATERIAL CODES: AG - AMBER GLASS; CG - CLEAR GLASS; HDP - HIGH DENSITY POLYETHYLENE; O - OTHER (SPECIFY)

WELL CAPACITY: 1.25" = 0.06 gal/ft; 2" = 0.16 gal/ft; 4" = 0.65 gal/ft; 6" = 1.47 gal/ft; 8" = 2.61 gal/ft; 12" = 5.88 gal/ft

NOTE: this does not constitute all the information required by Chapter 62-160, F.A.C.

SL SAVANNAH LABORATORIES
& ENVIRONMENTAL SERVICES, INC.

5102 LaRoche Avenue • Savannah, GA 31404 • (912) 354-7858 • Fax (912) 352-0165

Ms. Lorena Kandt
ABB Environmental Services, Inc.
1080 Woodcock Road
Orlando, FL 32803

LOG NO: S7-77279
Received: 23 DEC 97
Reported: 07 JAN 98

S7ABORQC
Client PO. No.: NE753107G

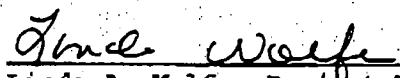
Requisition: RFP#ATQ97-031
Contract No.: N62467-89-D-0317
Project: NTC Orlando/02530.16/SDG#ABOR12
Sampled By: Client
Code: 153080326

Page 5

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	SDG#
77279-3	Trip Blank	ABOR12
PARAMETER	77279-3	
Purgeable Aromatics (602)		
Benzene, ug/l	1.0U	
Toluene, ug/l	1.0U	
Ethylbenzene, ug/l	1.0U	
Total Xylenes, ug/l	2.0U	
Methyl tert-butyl ether (MTBE), ug/l	10U	
Surrogate - a,a,a-Trifluorotoluene	110 %	
Date Analyzed	12.30.97	
Dilution factor	1.0	
Batch ID	1229B	
Clock ID	1B1229	

Methods: EPA SW-846


Linda A. Wolfe, Project Manager

Final Page Of Report

Laboratories in Savannah, GA • Tallahassee, FL • Tampa, FL • Deerfield Beach, FL • Mobile, AL

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REPORT OF RESULTS

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LOG NO	SAMPLE DESCRIPTION, LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
77279-1	017GM405/2036/MW4	12-22-97/1113	ABOR12
77279-2	017GM107/2036/MW1	12-22-97/1245	ABOR12
PARAMETER	77279-1	77279-2	
Petroleum Range Organics (FL-PRO)			
Petroleum Range Organics (FL-PRO), mg/l	0.30U	12	
Surrogate - O-Terphenyl (OTP)	89 %	121 %	
Dilution factor	1.0	2.0	
Date Extracted	12.29.97	12.29.97	
Date Analyzed	12.29.97	01.02.98	
Batch ID	1229U	1229U	
Initial Volume/Weight	1000	1000	
Final Extraction Volume (FV1)	2.0	2.0	
Ethylene dibromide			
1,2-Dibromoethane (EDB), ug/l	0.020U	0.020U	
Date Extracted	12.31.97	12.31.97	
Date Analyzed	01.01.98	01.01.98	
Dilution factor	1.0	1.0	
Batch ID	12310	12310	
Instrument ID	SGRECD	SGRECD	
Lead (239.2)			
Lead, mg/l	0.12	0.16	
Preparation Date	12.30.97	12.30.97	
Date Analyzed	01.02.98	12.31.97	
Dilution factor	5.0	5.0	
Batch ID	1230G	1230G	
Initial Volume/Weight	50	50	
Final Volume (FV1)	50	50	

REPORT WAS REVISED ON 1/12/98 PER MIRNA BARQ.

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REPORT OF RESULTS

Page 3

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
77279-1	017GM405/2036/MW4	12-22-97/1113	ABOR12
77279-2	017GM107/2036/MW1	12-22-97/1245	ABOR12
PARAMETER	77279-1	77279-2	
Polynuclear Aromatics (HPLC) (610)			
Acenaphthene, ug/l	1.0U	1.0U	
Acenaphthylene, ug/l	1.0U	1.0U	
Benzo(a)pyrene, ug/l	0.20U	0.20U	
Benzo(g,h,i)perylene, ug/l	0.50U	0.50U	
Benzo(b)fluoranthene, ug/l	0.20U	0.20U	
Benzo(k)fluoranthene, ug/l	0.50U	0.50U	
Chrysene, ug/l	0.20U	0.20U	
Benzo(a)anthracene, ug/l	0.20U	0.20U	
Fluoranthene, ug/l	0.50U	0.50U	
Fluorene, ug/l	0.50U	0.50U	
Indeno(1,2,3-cd)pyrene, ug/l	0.50U	0.50U	
Dibenzo(a,h)anthracene, ug/l	1.0U	1.0U	
Naphthalene, ug/l	1.0U	1.0U	
Phenanthrene, ug/l	0.20U	0.37	
Anthracene, ug/l	0.20U	0.20U	
Pyrene, ug/l	0.50U	1.1	
1-Methylnaphthalene, ug/l	1.0U	1.0U	
2-Methylnaphthalene, ug/l	1.0U	1.0U	
Surrogate - Terphenyl-d14	80 %	148 %	
Date Extracted	01.02.98	01.02.98	
Date Analyzed	01.03.98	01.06.98	
Dilution factor	1.0	1.0	
Batch ID	0102J	0102J	
Instrument ID	LCAUV	LCAUV	
Initial Volume/Weight	1000	1000	
Final Extraction Volume (FV1)	1.0	1.0	

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Project: NTC Orlando/02530.16/SDG#ABOR12
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REPORT OF RESULTS

Page 2

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
77279-1	017GM405/2036/MW4	12-22-97/1113	ABOR12
77279-2	017GM107/2036/MW1	12-22-97/1245	ABOR12
PARAMETER	77279-1	77279-2	
Methylene chloride (Dichloromethane), ug/l	5.0U	5.0U	
1,1,2,2-Tetrachloroethane, ug/l	1.0U	1.0U	
Tetrachloroethene, ug/l	1.0U	1.0U	
1,1,1-Trichloroethane, ug/l	1.0U	1.0U	
1,1,2-Trichloroethane, ug/l	1.0U	1.0U	
Trichloroethylene, ug/l	1.0U	1.0U	
Trichlorofluoromethane, ug/l	1.0U	1.0U	
Vinyl chloride, ug/l	1.0U	1.0U	
Surrogate - Bromochloromethane	73 %	76 %	
Date Analyzed	12.30.97	12.30.97	
Dilution factor	1.0	1.0	
Batch ID	1229B	1229B	
Clock ID	1B1229	1B1229	
Purgeable Aromatics (602)			
Benzene, ug/l	1.0U	1.0U	
Toluene, ug/l	1.0U	18	
Ethylbenzene, ug/l	1.0U	19	
Total Xylenes, ug/l	2.0U	114	
Methyl tert-butyl ether (MTBE), ug/l	10U	10U	
Surrogate - a,a,a-Trifluorotoluene	100 %	113 %	
Date Analyzed	12.30.97	12.30.97	
Dilution factor	1.0	1.0	
Batch ID	1229B	1229B	
Clock ID	1B1229	1B1229	

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Revised
3/26/98

Ms. Lorena Kandt
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1080 Woodcock Road
Orlando, FL 32803

LOG NO: S7-77279
Received: 23 DEC 97
Reported: 07 JAN 98
S7ABORQC

Client PO. No.: NE753107G

Requisition: RFP#ATQ97-031
Contract No.: N62467-89-D-0317

Project: NTC Orlando/02530.16/SDG#ABOR12

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Page 1

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
77279-1	017GM405/2036/MW4	12-22-97/1113	ABOR12
77279-2	017GM107/2036/MW1	12-22-97/1245	ABOR12
PARAMETER	77279-1	77279-2	
Purgeable Halocarbons (601)			
Bromodichloromethane, ug/l	1.0U	1.0U	
Bromoform, ug/l	5.0U	5.0U	
Bromomethane, ug/l	1.0U	1.0U	
Carbon tetrachloride, ug/l	1.0U	1.0U	
Chlorobenzene, ug/l	1.0U	1.0U	
Chloroethane, ug/l	1.0U	1.0U	
2-Chloroethylvinyl ether, ug/l	10U	10U	
Chloroform, ug/l	1.0U	1.0U	
Chloromethane, ug/l	1.0U	1.0U	
Dibromochloromethane, ug/l	1.0U	1.0U	
1,2-Dichlorobenzene, ug/l	1.0U	1.0U	
1,3-Dichlorobenzene, ug/l	1.0U	1.0U	
1,4-Dichlorobenzene, ug/l	1.0U	1.0U	
Dichlorodifluoromethane, ug/l	1.0U	1.0U	
1,1-Dichloroethane, ug/l	1.0U	1.0U	
1,2-Dichloroethane, ug/l	1.0U	1.0U	
1,1-Dichloroethene, ug/l	1.0U	1.0U	
Cis/Trans-1,2-Dichloroethene, ug/l	1.0U	1.0U	
1,2-Dichloropropane, ug/l	1.0U	1.0U	
cis-1,3-Dichloropropene, ug/l	1.0U	1.0U	
trans-1,3-Dichloropropene, ug/l	1.0U	1.0U	



SAVANNAH LABORATORIES & ENVIRONMENTAL SERVICES, INC.

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Serial Number

- ☐ 5102 LaRoche Avenue, Savannah, GA 31404
- ☐ 2846 Industrial Plaza Drive, Tallahassee, FL 32301
- ☐ 414 SW 12th Avenue, Deerfield Beach, FL 33442
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Fax: (954) 421-2584
Fax: (334) 666-6696
Fax: (813) 885-7049
Fax: (504) 725-1163

PROJECT REFERENCE Site 2036		PROJECT NO. 0253016	PO NUMBER	MATRIX TYPE	REQUIRED ANALYSES										PAGE 1 OF 1			
PROJECT LOC. (State) FL	SAMPLER(S) NAME MIRNA BARW.		PHONE 407 895-8845	FAX 407 896-6150	<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);"> AQUEOUS (WATER) SOLID OR SEMISOLID AIR NONAQUEOUS LIQUID (oil, solvent, etc.) </div> <div style="text-align: center;"> 601/602 EDB total lead FL PRO 610 HPLC </div> </div>													
CLIENT NAME ABB. ES		CLIENT PROJECT MANAGER John Ruscic																
CLIENT ADDRESS (CITY, STATE, ZIP) 1080 woodcock Rd suite 100, Orlando																		
SAMPLE		SL NO.	SAMPLE IDENTIFICATION		NUMBER OF CONTAINERS SUBMITTED										REMARKS			
DATE	TIME																	
12-22-97	1113		mw-4		✓	3	3	1	2	2								
12-22-97	1245		mw-1		✓	3	3	1	2	2								
			Trip Blank		✓													
RELINQUISHED BY: (SIGNATURE) <i>[Signature]</i>					DATE	TIME	RELINQUISHED BY: (SIGNATURE) <i>[Signature]</i>					DATE	TIME	RELINQUISHED BY: (SIGNATURE)			DATE	TIME
RECEIVED BY: (SIGNATURE) <i>[Signature]</i>					DATE	TIME	RECEIVED BY: (SIGNATURE) <i>[Signature]</i>					DATE	TIME	RECEIVED BY: (SIGNATURE)			DATE	TIME
RECEIVED FOR LABORATORY BY: (SIGNATURE) <i>[Signature]</i>					DATE	TIME	CUSTODY SEAL NO.					SL LOG NO.	LABORATORY REMARKS:					
					12/23/97	0954	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>					57-77279						